

**AMENDMENTS TO THE CLAIMS**

Please amend the claims as follows:

**Listing of Claims:**

Claim 1 (Previously Presented): A packet transmission system comprising:

a plurality of wireless base stations; and

one or more terminal devices belonging to one of the wireless base stations;

wherein each of the wireless base stations has

a location table to record an address of each of said plurality of wireless base stations that structure a network, in association with an address of the terminal device currently existing under said each wireless base station,

a route control table describing each of the other wireless base stations as a root bridge or a destination bridge of a transmission path in the network in association with a next hop to which the received packet is to be forwarded, the next hop being determined in accordance with a wireless base station to which a source terminal device or a destination terminal device currently belongs,

each of the wireless base stations is configured to exchange the information in the location table with the other wireless base stations to update the location table; and

each of the wireless base stations is configured to, upon receiving a packet, identify a wireless base station to which the source terminal device or the destination terminal device currently belongs according to the location table, based on a source address of the source terminal device or a destination address of the destination terminal device, respectively, included in the received packet to find the next hop according to the route control table, and transmit the packet to the next hop.

Claims 2-4 (Cancelled).

Claim 5 (Previously Presented): The packet transmission system of claim 1, wherein the received packet includes an ID of a transmission tree used to transmit said received packet or address information representing the wireless base station to which the source terminal device or the destination terminal device currently belongs; and

wherein each of the wireless base stations is configured to determine the next hop to which the received packet is to be forwarded from the route control table based on the ID of the transmission tree or the address information of the wireless base station included in the packet.

Claim 6 (Previously Presented): A wireless base station constituting, together with other wireless base stations, a packet transmission system using a wireless packet network, comprising:

a location table to record an address of each of the wireless base stations in said packet transmission system, in association with an address of each of terminal devices currently participating in the network and existing under a corresponding one of the wireless base stations;

a route control table describing each of the other wireless base stations as a root bridge or a destination bridge of a transmission path in the network in association with a next hop to which a packet is to be forwarded, the next hop being determined in accordance with a wireless base station to which a source terminal device or a destination terminal device belongs;

a route determination unit configured to identify a wireless base station to which the source terminal device or the destination terminal device currently belongs according to the location table, based on a source address of the source terminal device or a destination

address of the destination terminal device included in a received packet and find the next hop according to the route control table; and

a packet transmission unit configured to transmit the packet to the next hop according to the determination result.

Claim 7 (Cancelled).

Claim 8 (Previously Presented): The wireless base station of claim 6, wherein the packet transmission unit transmits a message packet reporting participation of a new terminal device when the new terminal device belongs to the wireless base station.

Claim 9 (Original): The wireless base station of claim 6, wherein when the receiving unit receives a message packet reporting a new terminal device having belonged to one of the other wireless base stations, the route determination unit updates the location table.

Claim 10 (Original): The wireless base station of claim 6, wherein when the receiving unit receives a packet from a source terminal device belonging to this wireless base station, the packet transmission unit writes an address of a destination side wireless base station to which a destination terminal device currently belongs in the packet, and then transmits the packet to the next hop according to the route control table.

Claims 11-28 (Cancelled).

Claim 29 (Previously Presented): A packet transmission system comprising a plurality of wireless base stations and one or more terminal devices belonging to one of the

wireless base stations,

wherein each of the wireless base stations includes:

a location table describing each of the terminal devices associated with a corresponding wireless base station to which the terminal device currently belongs,

a route control table describing each of the other wireless base stations in the network in association with a next hop to which the received packet is to be forwarded, the next hop being determined in accordance with a wireless base station to which a source terminal device or a destination terminal device currently belongs,

a packet creating unit configured, if said one of the wireless base stations is a wireless base station that first received a packet from a terminal device, to add address information of a wireless base station, to which the source terminal device or the destination terminal device of the received packet currently belongs, to the received packet with reference to the location table,

a route determination unit configured, upon receiving a packet from another wireless base station, to determine a next hop wireless base station to which the received packet is to be forwarded based upon the address information of the wireless base station to which the source terminal device or the destination terminal device currently belongs, the address information included in the packet, with reference to the route control table,

a packet transmission unit configured to transmit the packet to the next hop wireless base station determined by the route determination unit, and

a location table updating unit configured to exchange the information in the location table with the other wireless base stations and update the location table of this wireless base station.

Claim 30 (Currently Amended): The packet transmission system of claim 29,  
wherein the packet transmission unit of a corresponding wireless base station is  
further configured to transmit a message packet reporting participation of a new terminal  
device when the new terminal device belongs to the corresponding wireless base station  
~~wireless base station~~; and

wherein the location table updating unit is further configured to update the location  
table when the message packet is received from another wireless base station.

Claim 31 (Previously Presented): The packet transmission system of claim 29,  
wherein the packet creating unit is configured, if said one of the wireless base stations  
is a wireless base station that first receives a packet from a terminal device, to add ID  
information of a transmission route for this packet to the receive packet, and

wherein upon receiving a packet from another wireless base station, the route  
determination unit determines the next hop wireless base station from the ID information of  
the transmission route included in the received packet, with reference to the route control  
table.

Claim 32 (Previously Presented): A wireless base station used in a wireless packet  
transmission system, comprising:

a location table describing each of the terminal devices associated with a  
corresponding wireless base station to which the terminal device currently belongs in said  
wireless packet transmission system,

a route control table describing each of the other wireless base stations in the wireless  
packet transmission system in association with a next hop to which the received packet is to

be forwarded, the next hop being determined in accordance with a wireless base station to which a source terminal device or a destination terminal device currently belongs,

a packet creating unit configured, if this wireless base station is one that first received a packet from a terminal device, to add address information of a wireless base station, to which the source terminal device or the destination terminal device of the received packet currently belongs, to the received packet with reference to the location table,

a route determination unit configured, upon receiving a packet from another wireless base station, to determine a next hop wireless base station to which the received packet is to be forwarded based upon the address information of the wireless base station to which the source terminal device or the destination terminal device currently belongs, the address information included in the packet, with reference to the route control table,

a packet transmission unit configured to transmit the packet to the next hop wireless base station determined by the route determination unit, and

a location table updating unit configured to exchange the information in the location table with the other wireless base stations and update the location table of this wireless base station.

Claim 33 (Previously Presented): The wireless base station of claim 32,  
wherein the packet transmission unit configured to transmit a message packet reporting participation of a new terminal device when the new terminal device belongs to this wireless base station; and

wherein the location table updating unit configured to update the location table when the message packet is received from another wireless base station.

Claim 34 (Previously Presented): The wireless base station of claim 32,

wherein the packet creating unit is configured, if this wireless base station is one that first receives a packet from a terminal device, to add ID information of a transmission route for this packet to the receive packet, and

wherein upon receiving a packet from another wireless base station, the route determination unit determines the next hop wireless base station from the ID information of the transmission route included in the received packet, with reference to the route control table.